



PTO/SB/088 (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 1

Complete if Known

Application Number	10/673,976
Filing Date	09/29/2003
First Named Inventor	Mark E. Van Dyke
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	SWRI-2921-04

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
<i>ME</i>		IWATA, et al.; Coating Film For Living Tissues; November 2, 1985; total of 9 pages; Japanese Patent Application Kokai Publication No. Sho 60-220068	
		ENDO; De-Allergized Rubber or Plastic Molding Used in the Field of Medical Care; April 16, 2002; total of 5 pages; Japanese Patent Application Kokai Publication No. 2002-113815	
<i>ME</i>		YOSHIOKA et al; Modified Animal Hair or Wool Powder; July 11, 1989; total of 13 pages; Japanese Unexamined Patent Application Publication H01-174528	
<i>ME</i>		MIYAMOTO et al; Process for Producing Modified Keratin Protein; February 6, 1982; total of 4 pages; Japanese Patent Application Kokai Publication No. Sho 57-23631.	
<i>ME</i>		YAMAUCHI et al; Keratin Microcapsule, Production of Keratin Microcapsule, and Cosmetics Containing Keratin Microcapsules; December 22, 1998; total of 5 pages; Japanese Patent Application Kokai Publication No. H10-337466	

Examiner
Signature

Date
Considered

7/10/05

¹EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



PTO/SB/08A (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number	10/673.976	
Sheet	1	of	9	Filing Date	09/29/2003
			First Named Inventor	MARK VAN DYKE	
			Art Unit	Not Yet Assigned	
			Examiner Name	Not Yet Assigned	
			Attorney Docket Number	SWRI-2921-04	

U.S. PATENT DOCUMENTS					
Examiner Initials ¹	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
Mw		US- 922.692	05-25-1909	B.B. GOLDSMITH	
		US- 926.999	07-06-1909	GARL NEUBERG	
		US- 960.914	06-07-1910	ARTHUR HEINEMANN	
		US- 3.642.498	02-15-1972	ANKER	
		US- 4.423.032	12-27-1983	ABE <i>et al.</i>	
		US- 4.474.694	10-02-1984	COCO <i>et al.</i>	
		US- 4.570.629	02-18-1986	WIDRA	
		US- 4.751.074	06-14-1988	MATSUNAGA <i>et al.</i>	
		US- 4.895.722	01-23-1990	ABE <i>et al.</i>	
		US- 5.047.249	09-10-1991	ROTHMAN <i>et al.</i>	
		US- 5.505.952	04-09-1996	JIANG <i>et al.</i>	
		US- 5.679.819	10-21-1997	JONES <i>et al.</i>	
		US- 5.712.252	01-27-1998	SMITH	
		US- 5.955.549	09-21-1999	CHANG <i>et al.</i>	
		US- 6.159.495	12-12-2000	TIMMONS <i>et al.</i>	
		US- 6.159.496	12-12-2000	BLANCHARD	
		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS							
Examiner Initials ¹	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	-Number ⁴ - Kind Code ⁵ (if known)				
Mw		EP	0 298 684 A3	01-11-1989	Unilever PLC		
		EP	0454 600 A1	10-30-1991	ICP FRANCE		
		JP	4-189833	07-08-1992	TAKEDA Chemical		
		WO	98/ 08550	03-05-1998	FUSION MEDICAL		
		WO	93/22397	11-11-1993	MERCK		
		EP	0 468 797 A2	01-29-1992	NIIGATA Hi-Spinner:		

Examiner Signature	<i>Mark Van Dyke</i>	Date Considered	2/16/05
-----------------------	----------------------	--------------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known	
Application Number	10/673.976			
Filing Date	09/29/2003			
First Named Inventor	MARK VAN DYKE			
Art Unit	Not Yet Assigned			
Examiner Name	Not Yet Assigned			
Attorney Docket Number	SWRI-2921-04			

Sheet	2	of	9
-------	---	----	---

U.S. PATENT DOCUMENTS					
Examiner Initials ⁵	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		US- 5,073,294	12-17-1991	SHANNON ET AL.	
		US- 5,202,053	04-13-1993	SHANNON	
		US- 5,563,230	10-08-1996	HSU ET AL.	
		US- 5,989,461	11-23-1999	COATES ET AL.	
		US- 5,654,471	08-05-1997	ZAHN ET AL.	
		US- 5,833,880	11-10-1998	SIEMENSMEYER	
		US- 6,090,308	07-18-2000	COATES ET AL.	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS						
Examiner Initials ⁵	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ² (if known)				

Examiner Signature	Date Considered 2/18/05
-----------------------	----------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 3 of 9

Complete if Known

Application Number	10/673,976
Filing Date	09/29/2003
First Named Inventor	MARK VAN DYKE
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	SWRI-2921-04

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
M		J.M. GILLESPIE, et al., "Amino Acid composition of a Sulphur-Rich Protein from Wool," BIOCHIM. BIOPHY. ACTA, (1960) pp. 538-539; Vol. 39.	
		KEITH H. GOUGH, et al., "Amino Acid Sequences of alpha -Helical Segments from S-Carboxymethylkerateine-A: Complete Sequence of a Type-I Segment," BIOCHEM. J. (1978), pp. 373-385; Vol. 173	
		THOMAS C. ELLEMAN, et al., "Amino Acid Sequences of alpha -Helical Segments from S-Carboxymethylkerateine-A: Statistical Analysis," BIOCHEM. J. (1978), pp. 387-391, Vol. 173.	
		DAVID McC. HOGG, et al., "Amino Acid Sequences of alpha-Helical Segments from S-Carboxymethylkerateine-A: Tryptic and Chymotryptic Peptides from a Type-II Segment," BIOCHEM. J. (1978), pp. 353-363; Vol. 173.	
		W. GORDON CREWETHER, et al., "Amino Acid Sequences of alpha -Helical Segments from S-Carboxymethylkerateine-A: Complete Sequence of a Type-II Segment," BIOCHEM. J. (1978), pp. 365-371; Vol. 173.	
		C. EARLAND, et al., "Studies on the Structure of Keratin: II. The Amino Acid Context of Fractions Isolated from Oxidized Wool," BIOCHEMICA ET BIOPHYSICA ACTA (1956), pp. 405-411, Vol. 22.	
		J.M. GILLESPIE, et al., "Preparation of an Electrophoretically Homogeneous Keratin Derivative from Wool," Short Communications, Preliminary Notes, (1953), pp. 481-482, Vol. 12.	
		MAURICE J. FRENKEL, et al., "The Isolation and Properties of a Tyrosine-Rich Protein from Wool: Component 0.62," EUR. J. BIOCHEM, (1973) pp. 112-119, Vol. 34.	
		R.J. BLAGROVE, et al., "The Electrophoresis of the High-Tyrosine Proteins of Keratins on Cellulose Acetate Strips," Comp. Biochem. Physiol., (1975) pp. 571-572, Vol 50B.	
		ROBERT C. MARSHALL, et al., "Successful Isoelectric Focusing of Wool Low-Sulphur Proteins," Journal of Chromatography, (1979) pp. 351-356, Vol. 172.	
M		ROBERT C. MARSHALL, "Characterization of the Proteins of Human Hair and Nail by Electrophoresis," The Journal of Investigation Dermatology, (1983) pp. 519-524, Vol. 80.	

Examiner
Signature

Date

Considered

7/1/05

¹ EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

² Applicant's unique citation designation number (optional). ³ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/673,976
		Filing Date	09/29/2003
		First Named Inventor	MARK VAN DYKE
		Group Art Unit	Not Yet Assigned
		Examiner Name	Not Yet Assigned
Sheet	4	of	9
		Attorney Docket Number	SWRI-2921-04

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
Mw		W. G. CREWETHER, et al. "Helix-Rich Fraction from the Low-Sulphur Proteins of Wool," Nature, (July 17, 1965) P. 295, No. 4994.	
		H. LINDLEY, et al., "Occurrence of the Cys-Cys Sequence in Keratins," J. Mol. Biol., (1967) pp. 63-67, Vol. 30.	
		ROBERT C. MARSHALL, "Genetic Variation in the Proteins of Human Nail," The Journal of Investigative Dermatology, (1980) pp. 264-269, Vol. 75.	
		M. E. CAMPBELL, et al., "Compositional Studies of High-and Low-Crimp Wools," Aust. J. Biol. Sci., (1972) pp. 977-87, Vol. 25.	
		P.J REIS, et al. "A Relationship between Sulphur Content of Wool and Wool Production by Merino Sheep," Aust. J. Biol. Sci., (1967) pp. 153-63, Vol. 20.	
		ROBERT C. MARSHALL, et al., "The Keratin Proteins of Wool, Horn and Hoof from Sheep," Aust. J. Biol. Sci., (1977) pp. 389-400, Vol 30.	
		J.M. GILLESPIE. "Reaction of Sodium Borohydride with Wool," Nature, (January 31, 1959) pp.322-23, Vol. 183.	
		DAVID R. GODDARD, et al., "A Study on Keratin," J. Bio. Chem., (1934) pp. 605-14, Vol. 106.	
		L.M. DOWLING, et al., "Isolation of Components from the Low-Sulphur Proteins of Wool by Fractional Precipitation Preparative Biochemistry," (1974) pp. 203-226, Vol. 4 (3).	
		W.G. CREWETHER, et al., "Reduction of S-Carboxymethylcysteine and Methionine with Sodium in Liquid Ammonia," Biochim. Biophys. Acta, (1969) pp. 609-611, Vol. 164.	
Mw		W.T. AGAR, et al., "The Isolation from Wool of a Readily Extractable Protein of Low Sulphur Content," Biochim. Biophys Acta, (1958) pp. 225-226, Vol. 27.	

Examiner Signature	<i>[Signature]</i>	Date Considered	7/18/05
--------------------	--------------------	-----------------	---------

¹EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

² Applicant's unique citation designation number (optional). ³ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/673,976
		Filing Date	09/29/2003
		First Named Inventor	MARK VAN DYKE
		Group Art Unit	Not Yet Assigned
		Examiner Name	Not Yet Assigned
		Attorney Docket Number	SWRI-2921-04
Sheet	5	of	9

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
Me		H. LINDLEY, et al., "The Reactivity of the Disulphide Bonds of Wool," Biochem J. (1974) pp. 515-523, Vol. 139.	
		M. SCHORNIG, et al., "Synthesis of Nerve Growth Fractor mRNA in Cultures of Developing Mouse Whisker Pad, A Peripheral Target Tissue of Sensory Trigeminal Neurons," The Journal of Cell Biology. (March 1993) nn. 1471-1479. Volume 120. Number 6.	
		S. MITSUI, et al., "Genes for a Range of Growth Factors and Cyclin-Dependent Kinase Inhibitors are Expressed by Isolated Human Hair Follicles," British Journal of Dermatology (1997) pp. 693-98. Vol. 137.	
		B.K. FILSHIE, et al., "The Fine Structure of alpha -Keratin," J. Mol. Biol. (1961) pp. 784-786, Vol. 3.	
		R.D.B. FRASER, et al., "Structure of alpha -Keratin," Nature, (February 28, 1959) pp. 592-94, Vol. 183.	
		R.D.B. FRASER, et al. "Helical Models of Feather Keratin Structure," Nature, (September 22, 1962) pp. 1167-1168, Vol. 195.	
		B.K.FILSHIE, et al., "An Electron Microscope Study of the fine Structure of Feather Keratin," The Journal of Cell Biology (1962) pp. 1-12, Volume 13.	
		W.G. CREWETHER, et al., "Low-Sulfur Proteins from alpha -Keratins. Interrelationships between their Amino Acid Compositions, alpha-Helix Contents, and the Supercontraction of the Parent Keratin," BIOPOLYMERS (1966) pp. 905-916, Vol. 4.	
		G.M. BHATNAGAR, et al., "The Conformation of the High-Sulphur Proteins of Wool 1. The Preparation and Properties of a Water-Sulphur Metakeratin," Int. J. Protein Research I. (1969), nn. 199-212.	
		W.G. CREWETHER, et al., "The Preparation and Properties of a Helix-Rich Fraction Obtained by Partial Proteolysis of Low Sulphur S-Carboxymethylkerateine from Wool," (1967) The Journal of Biological Chemistry (Issue of October 10), pp. 4310-4319, Vol. 242, No 19.	
dw		D.A.D. PARRY, et al., "Structure of alpha -Keratin: Structural Implication of the Amino Acid Sequences of the Type I and II Chain Segments," J. Mol. Biol. (1977) pp. 449-454, Vol. 113.	

Examiner Signature	<i>Patricia</i>	Date Considered	7/18/05
--------------------	-----------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/673,976
		Filing Date	09/29/2003
		First Named Inventor	MARK VAN DYKE
		Group Art Unit	Not Yet Assigned
		Examiner Name	Not Yet Assigned
		Attorney Docket Number	SWRI-2921-04
Sheet	6	of	9

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-Issue number(s), publisher, city and/or country where published	T ²
EW		E. SUZUKI, et al., "X-Ray Diffraction and Infrared Studies of an alpha -Helical Fragment from alpha -Keratin," J. Moll. Biol. (1973) pp. 275-278, Vol. 73.	
		G.M. BHATNAGAR, et al., "The Conformation of the High-Sulphur Proteins of Wool: II. Difference Spectra of Keratine-B," Int. J. Research, (1969) pp. 213-219.	
		DEAN R. HEWISH, et al., "In Vitro Growth and Differentiation of Epithelial Cells Derived from Post-Embryonic Hair Follicles," Aust. J. Biol. Sci., (1982) pp. 103-109, Vol. 35.	
		A.M. DOWNES, et al., "A Study of the Proteins of the Wool Follicle," Aust. J. Biol. Sci., (1966) pp. 319-33, Vol. 19.	
		G. E. ROGERS, et al., "Keratin Protofilaments and Riobsomes from Hair Follicles," Nature, (January 2, 1965), pp. 77-78, Vol. 205.	
		P.M. STEINERT, et al., "In Vitro Studies on the Synthesis of Guinea Pig Hair Keratin Proteins," Biochimica et Biophysica Acta, (1973) pp. 403-412, Vol. 312.	
		G.E. ROGERS, et al., "Some Observations on the Proteins of the Inner Root Sheath Cells of Hair Follicles," Biochimica et Biophysica Acta, (1958) pp. 33-43, Vol. 29.	
		LESLIE N. JONES, et al., "Studies of Developing Human Hair Shaft Cells in Vitro," The Journal of Investigative Dermatology., (January 1988) pp. 58-64, Vol. 90.	
		TREVOR JARMAN, et al., "Prospects for Novel Biomaterials Development," Online Publications, Pinner, Uk, Presented at Biotech '85 (Europe) (1985) pp. 505-512.	
		AKIRA TACHIBANA, et al., "Fabrication of Wool Keratins Sponge Scaffolds for Long-Term Cells Cultivation," Journal of Biotechnology, (2002) pp. 165-170, Vol. 93.	
		J.M. Gillispie, et al., "Periodicity in High-sulphur Proteins from Wool," Nature, (September 18, 1965) pp. 530-531, Vol. 246.	

Examiner Signature	<i>[Signature]</i>	Date Considered	7/18/05
--------------------	--------------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete if Known <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Application Number</td> <td>10/673,976</td> </tr> <tr> <td>Filing Date</td> <td>09/29/2003</td> </tr> <tr> <td>First Named Inventor</td> <td>MARK VAN DYKE</td> </tr> <tr> <td>Group Art Unit</td> <td>Not Yet Assigned</td> </tr> <tr> <td>Examiner Name</td> <td>Not Yet Assigned</td> </tr> <tr> <td>Attorney Docket Number</td> <td>SWRI-2921-04</td> </tr> </table>		Application Number	10/673,976	Filing Date	09/29/2003	First Named Inventor	MARK VAN DYKE	Group Art Unit	Not Yet Assigned	Examiner Name	Not Yet Assigned	Attorney Docket Number	SWRI-2921-04
Application Number	10/673,976														
Filing Date	09/29/2003														
First Named Inventor	MARK VAN DYKE														
Group Art Unit	Not Yet Assigned														
Examiner Name	Not Yet Assigned														
Attorney Docket Number	SWRI-2921-04														
Sheet	7 of 9														

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
M		KIYOSHI YAMAUCHI, "The Development of Keratin: Characteristics of Polymer Films," [Research Report]; pp. 1-12.	
		"Scattering to Structural Foams, Skin, Synthetic" Encyclopedia of Polymer and Science and Engineering, (1989) pp. 335-345, Vol. 15.	
		J.M. GILLESPIE, et al., "Proteins Rich in Glycine and Tyrosine from Keratins," Comp. Biochem. Physiol., (1972) pp. 723-734, Vol. 41B.	
		R.D.B. FRASER, et al., "Tyrosine-Rich Proteins in Keratins," Comp. Biochem. Physiol., (1973) pp. 943-947, Vol. 44B.	
		J.M. GILLESPIE, et al., "Relation Between the Tyrosine Content of Various Wools and their Content of a Class of Proteins Rich In Tyrosine and Glycine," Aust. J. Biol. Sci., (1971) pp. 1189-97, Vol. 24.	
		J.M. GILLESPIE, et al., "The Macroheterogeneity of Type I Tyrosine-rich Proteins of Merino Wool," Aust. J. Biol. Sci., (1974) pp. 617-27, Vol. 27.	
		E.G. BENDIT, et al., "The Probable Role and Location of High-Glycine-Tyrosine Proteins in the Structure of Keratins," BIOPOLYMERS, (1978) pp. 2743-2745, Vol. 17.	
		ROBERT C. MARSHALL, et al. "High-sulphur Proteins from alpha -Keratins: 11.* Isolation and Partial Characterization of Purified Components from Mouse Hair," Aust. J. Biol. Sci. (1976) pp. 11-20, Vol. 29.	
		ROBERT C. MARSHALL, et al. "High-Sulphur Proteins from alpha -Keratins: 1. Heterogeneity of the Proteins from Mouse Hair," Aust. J. Biol. Sci. (1976) pp. 1-10, Vol. 29.	
		R. L. DARSKUS, et al. "The Possibility of Common Amino Acid Sequences in High-Sulphur Protein Fractions From Wool," Aust. J. Biol. Sci. (1969) pp. 1197-1204, Vol. 22.	
M		ROBERT C. MARSHALL, et al. "Heterogeneity and Incomplete Disulfide Reduction in the High-Sulfur Proteins of Wool," Aust. J. Biol. Sci. (1978) pp. 219-229, Vol. 31.	

Examiner Signature	Date Considered
	2/18/05

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/673,976
		Filing Date	09/29/2003
		First Named Inventor	MARK VAN DYKE
		Group Art Unit	Not Yet Assigned
		Examiner Name	Not Yet Assigned
		Attorney Docket Number	SWRI-2921-04
Sheet	8	of	9

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
<i>MW</i>		H. LINDLEY, et al., "The Preparation and Properties of a Group of Proteins from the High- Sulphur Fraction of Wool," Biochem. J. (1972) pp. 859-867, Vol. 128.	
		J.M. GILLESPIE, et al., "Evidence of Homology in a High-Sulphur Protein Fraction (SCMK-B2) of Wool and Hair alpha -Keratins," Biochem. J. (1968) pp. 193-198, Vol. 110.	
		J.M. GILLESPIE, et al., "A Comparative Study of High-Sulphur Proteins from alpha-Keratins," Comp. Biochem. Physiol. (1965) pp. 175-185, Vol. 15.	
		J.M. GILLESPIE, et al., "High-Sulphur Proteins as a Major Cause of Variation in Sulphur Content Between alpha -Keratins," Nature (September 18, 1965) pp. 1293-94, Vol. 207.	
		R.D.B. FRASER, et al., "Molecular Organization in Alpha-Keratin," Nature, (March 17, 1962) pp. 1052-1055, Vol. 193.	
		DR. P. ALEXANDER, et al., "Structure of Wool Fibres," Nature, (September 2, 1950) pp. 396-398.	
		NODE, et al., "Hard Acid and Soft Nucleophile System. 2. Demethylation of Methyl Ethers of Alcohol and Phenol with an Aluminum Halide-Thiol System," J. Org. Chem (1980), pp. 4275-4277. Vol. 45.	
		ITO, et al., "Biocompatibility of Denatured Wool Keratin," Konbushi Ronbunshu [Collected Essays on Polymers], (April 1982) pp. 249-256, Vol. 39, No. 4.	
		TATSUYA and ISHII, "Keratin Protein High Pressure Molded Article,"; Japanese Patent Application, (Dec. 03, 1993), total of six pages, Public Patent Announcement 1993-320358.	
		SAEKI, YOKOGAWA, and UEHARA, "Production Method For Water-soluble Keratin Protein," Japanese Patent Application, (February 21, 1990), total of five pages, Public Patent Announcement 1990-51533.	
<i>MW</i>		MIYAMOTO and TSUSHIMA, "A Method for Preparing a Keratin Substance with a Low Molecular Weight," Japanese Patent Application, (July 8, 1982), total of five pages; Public Patent Disclosure Bulletin S57-109797.	

Examiner Signature	<i>[Signature]</i>	Date Considered	7/18/05
--------------------	--------------------	-----------------	---------

¹EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Required to respond to a collection of information unless it contains a valid OMB

Substitute for form 1449B/PTO

(use as many sheets as necessary)

Sheet 9 of 9

Sheet 9 of 9

Complete if Known

Application Number	10/673,976
Filing Date	09/29/2003
First Named Inventor	MARK VAN DYKE
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	SWRI-2921-04

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

[illegible]

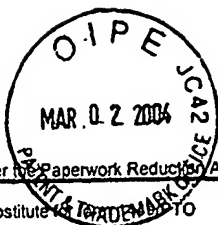
**Examiner
Signature**

Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**



PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for Trademark PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/673,976
Filing Date	September 29, 2003
First Named Inventor	Van Dyke
Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	SwRI-2921-04

Sheet 1 of 2

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
Mw		US- 5358935	10-25-1994	Lankford et al.	
		US- 5356433	10-18-1994	Rowland et al.	
		US- 3677693	07-18-1972	Fillingham	
		US- 6352699	03-05-2002	Mondet, et al.	
		US- 5300285	04-05-1994	Halloran, et al.	
		US- 5412076	05-02-1995	Gagnieu	
		US- 3250682	05-10-1966	Wilmsmann, et al	
		US- 5258501	11-02-1993	Barbaric, et al.	
		US- 4504644	03-12-1985	Lang, et al.	
		US- 2434688	01-20-1948	Evans	
		US- 5276138	01-04-1994	Yamada, et al.	
		US- 5520925	05-28-1996	Maser	
		US- 5948432	09-07-1999	Smith, et al.	
		US- 6124265	09-26-2000	Smith, et al.	
		US- 6165496	12-26-2000	Smith, et al.	
		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
Mw		WO 03008006	01-30-2003	PHANEUF, M		
		EP 0540357	05-05-1993	Jones, et al.		
		EP 0097907	01-11-1984	Haller		
		WO 9931167	06-24-1999	Vanderhoff, et al.		

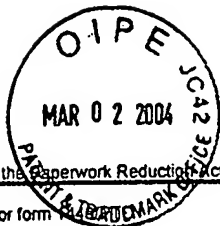
Examiner
SignatureDate
Considered

2/11/05

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/088 (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form

Complete if Known**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Application Number	10/673,976
Filing Date	September 29, 2003
First Named Inventor	Van Dyke
Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	SwRI-2921-04

Sheet 2 of 2

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
MW		VAN DYKE MARK ET AL., Development of keratin coatings for osteoinduction on titanium, Abstracts of Papers American Chemical Society, vol. 224, no. 1-2, 2002, August 18-22, 2002.	
I		TANAKA, YOSHIO ET AL., Reaction of Wool Keratin with Epoxides, Proceedings International Wolltextil-Forschungskonf, Vol. 3, 1976, pp. 192-201	
MW		FRAENKEL-CONRAT, H., The Action of 1, 2-Epoxides on Proteins, Journal of Biological Chemistry, vol. 154, no. 1, June 1, 1944	

Examiner
SignatureDate
Considered

7/18/05

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>			Complete if Known		
			Application Number	10/673,976	
			Filing Date	09/29/2003	
			First Named Inventor	VAN DYKE	
			Group Art Unit	1646	
			Examiner Name	Not Yet Assigned	
			Attorney Docket Number	SwRI-2921-04	
Sheet	1	of	1		

[illegible]

Examiner Signature		Date Considered	2/18/05
-----------------------	---	--------------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.